Missouri Botanical Garden

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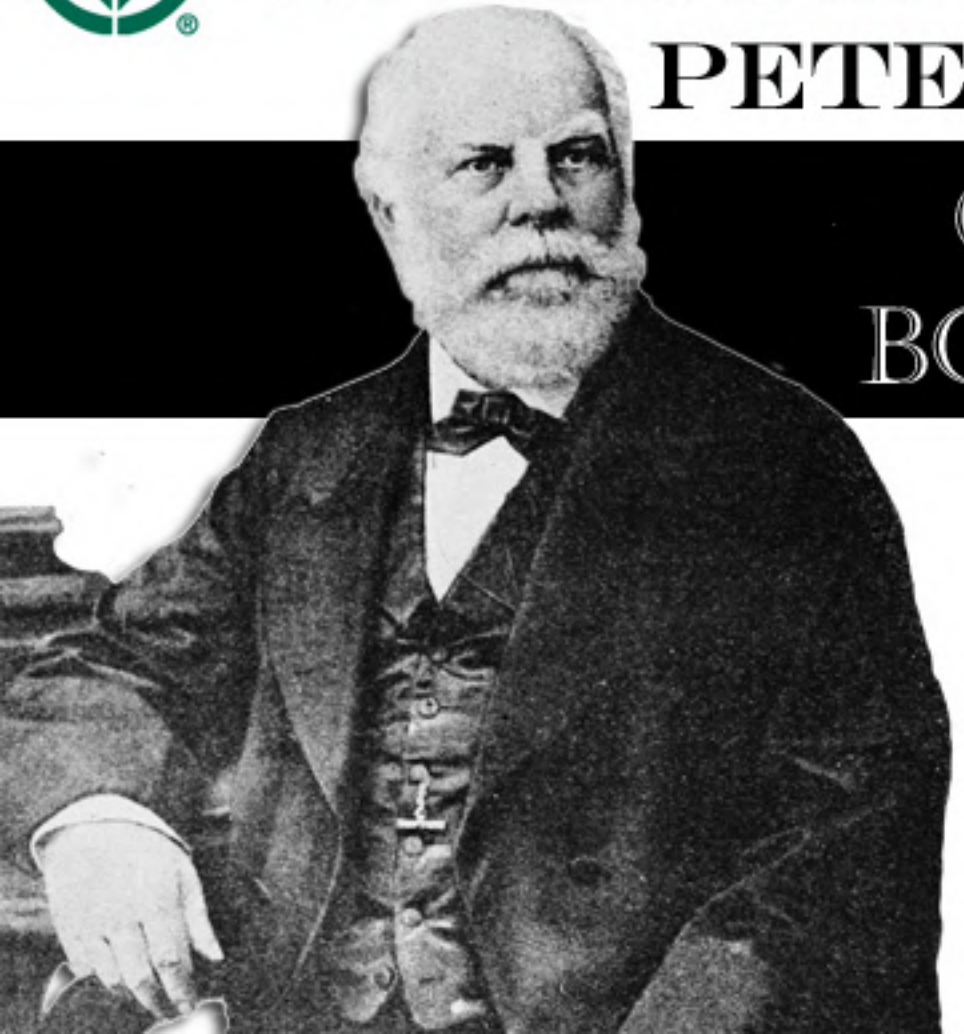

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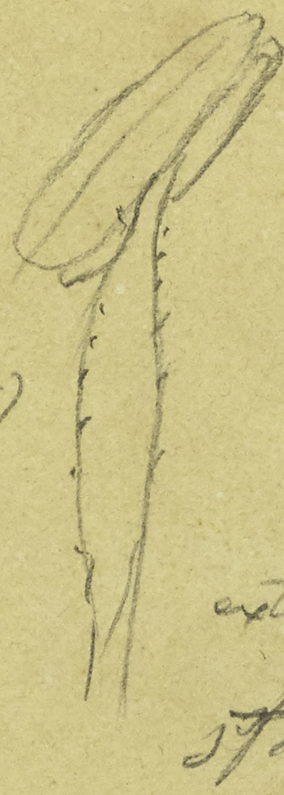
Op. tomentosa

July 12 1905

Diam of soaked Pollen X415
0.071 — 0.073

X30

X10



extine

intine

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cm
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MISSOURI BOTANICAL GARDEN

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St Louis, Mo.

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Opuntia Ackeri

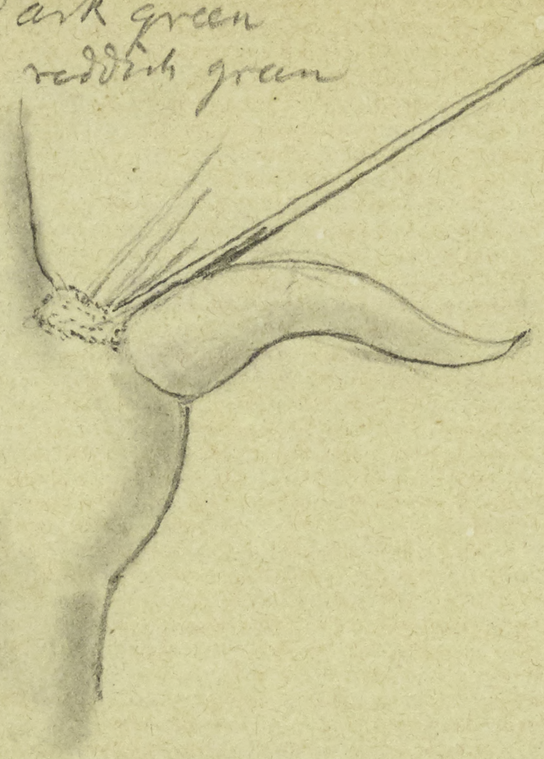
Oct 6 1861

Hort B. Missouri

x4

leaf of a very young shoot

leaves dark green or slightly reddish green



older leaf just before dropping off

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M. W. ALEXANDER,
SOUTH-EAST CORNER OF FOURTH AND MARKET STREETS,
ST. LOUIS.

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Sept 1861

Opuntia cornigera

Hort bot Missouri ex hort Dyck No 1.

Erecta (laete viridis) stricta: 4–5' alta; articuli 4–6" lat., 8–12 long; maximi 9" lat 14" long. foliis subulata squamæo-reflexa

Inf flowers June & July 1862

Ovary obovate clavate, 1/2 inch long, tuberculate, with 28 or 30 areolae, upper ones oblong linear, lower ones shorter, rounder; leaves all deciduous at the time of flowering; areolæ bearing dense very short whitish tomentum and upper ones a few white bristles:

About 15 interior sepals, erect, ~~fleshy~~ crimson, ranate, lower ones triangular, upper ones ovate acute, dimorphous most cuspidate.

Petals about 5 erect, rounded, obtuse, closely wrapped around the bunde of stamens

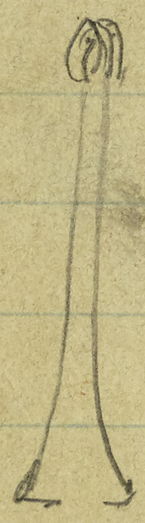
Stamens from the very base of tube except, crimson upwards, anthers cuspidate bristle pointed

Style white except above the stamens, above yellowish green & stigmata capitate, greenish brown, acutish incurved. (Shape of style very unusual, not verticose, but dilated at base

Leaves 3–4 lines long patulous, reflexed on a prominent pulvilley, with tomentum and a few bristles at axil

Specimen Abb. No. 24 has the stamens longer, & green stigmata only as long as stamens

In this genus I have none of the spines so common in many Cactaceæ



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5. Op. "coccinelliferum" Hort bot Neapol (soulla)
Dec 25 1864

An old stout plant, but with few joints — 4½' high
Joints 15–22 inches long, 5–7 wide — oblanceolate, rather thick.

Areolae ½–2" apart, small, somewhat immersed; spineless, or bearing short bristle like deciduous single spines.

no fl. or fr. seen.

14. is the same, 6 feet high; joints 20–22 by 6–7 inches, thick;

areolae 2 inches apart, orbicular or slightly oval, often with 1 or 2 short bristly spines of 2–3" long

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Op. monocephala

July 20 1862

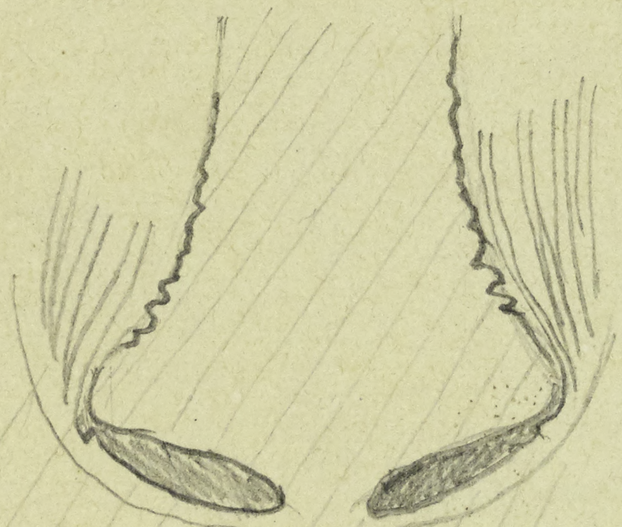
a better developed flower

32 arol.
13–14 sepl
4–5 petal

stigm 7–8

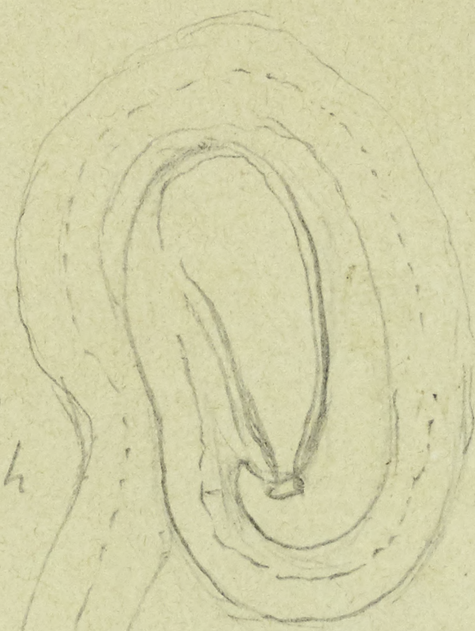
stigm 8
yellowish green
slightly brownish
acutate

× 4



base of style

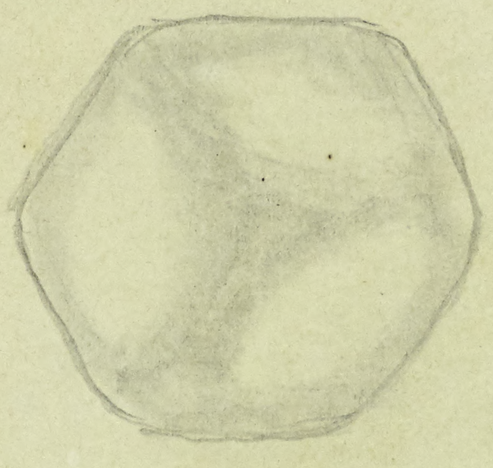
sect.



sect of ovary

× 30

× 10



× 289

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July 13 1862

Opunt. coccinellifera

imperfect.

× 5

slig. 8. green upwards Growth

slig. 7–8

tubercles too marked.

× 30

× 280

× 10

Epidermis of ovulum × further

Glands

× 25

28 – 30 areoles

× 280

section

a, dry

b, wet

a, wet

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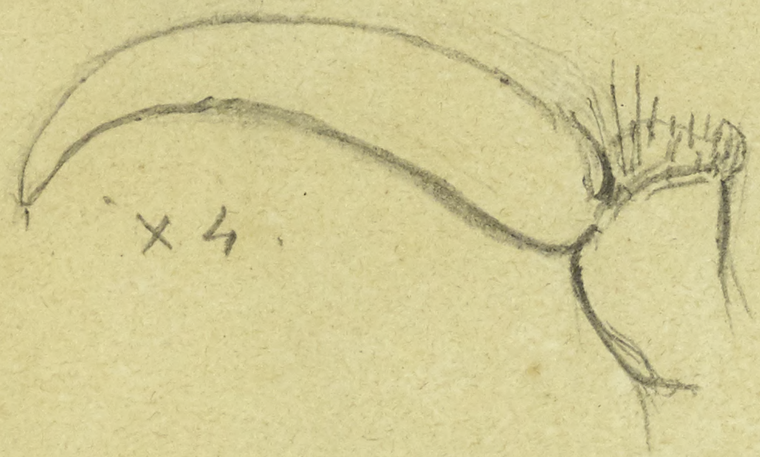
Opuntia cornuella Forn.
H. B. M.s. Jul

July 1862



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CHEMICAL,
DRUGGIST & PHARMACEUTIST,
Cor. Fourth & Olive Sts., St. Louis, Mo.

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Extract Wright Jan 12 1866

Just as I was leaving Yucatan I found a cultivated Opuntia "inapetta" Distinguished from the native one only by the absence of spines.

[Op. Cochinellifera]

It grows to 12 ft. 25 Jan 12th

The Maya Indians call the wild form Takam and the Cultivated Pakam

This is the true Cochineal plant and was extensively cultivated up to 1750; under Charles II 2000 arrobas Cochenille were exported from Yucatan. (500 Cts)

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= Aubri ?

Op. inaperta Schott

thais one main stem, if it does the minors in the course of time become overpowered by the monarchical proclivities of one and finally you see an treeopuntia 25 feet high branching out sometimes but little and sometimes much but never expanding much of a crown. What interested me most with this species is its decidedly purple flower with small somewhat tubulate but broad based petals. its elongated often attenuated joints and in general an external aspect of Cylindropuntiae, which subgenus it seems to represent here. Now for the sake of its never opening flowers I affixed to this Opuntia the fieldname: O. inaperta, I collected all the details of the plant, which I will transmit to you together with other matter, as soon as my botanical crop here, shall be ready for a tapping to be sent North. Meantime I give you the description of the species, as I have left it up to this time, though some alterations become necessary:

Opuntia inaperta.

Subgen. Stenopuntiae; articuli complanati; flores parvi; petala lanceolata; stigmata 6.

O. erecta, articul. elongat. laete viridi; flores margine fuscoque gerentes; pulvillis 1'' distant. aculeis 3–5. flavis brunneo variegat; bacca

S.

Mrs Harriet Converse
Cincinnati Ohio
Mendocino & Coloma.

rubra, ovata seu obovata, late et profunde umbilicata, 40–50 fast pul= vill. vestita. floribus purpurascent. 6. staminib. et stigmatib. exertis Habitat Sisal & Merida.

Plant grows to 25 feet high; joints 8" long; flower 8''' diameter but never opening; fruit from 8 to 12" long, leaflets on the upper part of the carpel recurved, purpurascent like the sepals & petals; seeds 3/4" diam. The seeds You may examine Your= self, for which purpose I enclose some of them.

Besides the Littorale here has two more Opuntiae, macranthae, Three Cerei among which one Lepidocereus one Mammillaria and, if I am right, a Peireskia. As soon as I am able to observe the floral and fructiferous details of these plants I shall take much pleasure of informing You about them.

The Mayanname of my Opuntia cri= nita is Dacam = Dzakam.

I have to close for this time, hope however to be able soon to give You fuller accounts of my doings here. If You should find time to write, let me hear from You

Yours most sincerely

Arthur Schott

Dr. Arthur Schott
Coast Survey
Office of Weights & Measures
Washington D.C.

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Rec'd May 28
Ans May 29

Merida, Yucatan, IV. 20. 1865.

Dr. George Engelmann, St. Louis Mo.

Dear Sir

Instead of writing and answering your last missive, while I was still at home in georgetown quietly vegetating along, it happens to that I have to do so again from a land, where I am a stranger and where animals and plants are also strangers to me, though many among them seem to be old acquaintances from good old Tejas & Sonora times. Though this part of Yucatan is an equally river- and springless limestone tableland like Western Tejas its vegetation is of a decided tropical character, showing that endless diversity of forms, where countries of higher latitudes exhibit more exclusive gregarious forms. It is probably stowed up by a warm sea surrounding on 3 sides, because for its geognostic topography it does not reach even western Tejas, the surface of which is very poorly watered but it is at least broken by many ravines, where Yucatan is but one solid sheet of horizontal limestonemasses. There is between here and sisal not a single brook, carrying down rainwater occasionally. The whole absorbtion of meteoric waters is effected by smaller and larger pores, like those of a sponge. holes whithered and washed out by the action of time. Still living if not running water is found every where stealing its course through these immense beds of limestonerock, about 30' below the surface in the neighborhood of

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Merida, the depth apparently decreasing with the approach of the Sea. This hydrostatic feature then accounts for the comparative opulent vegetation, which here forms an endless desert of Mimoseae, occasionally interspersed by the hand of man with oases of tropical fruittrees. The mezquite (Algarobia) the dominant treetype of Western Texas is here but a subordinate straggler, hardly attaining the height or shape of a tree, while other subtropical plants and shrubs here become fruticose and even arborcous. There is for instance that euphorbiaceous nettle, Cnicdoscolus which here grows to a height of from 10 to 12 feet with woody branches three fingers thick. Also some Cassias mere bushes in Texas here become small trees.

The Cacteae are also represented here but like others forming not so exclusive feature in the landscape as they do on the tablelands of Northern Mexico. However the first one I had my eye on right close to the Seaside was of course a never failing Opuntia, which in regard to its habitus would deserve the name of arborea. It forms very seldom more